AMENDMENTS TO THE CLAIMS

Kindly amend the claims without prejudice to the subject matter involved as indicated in the listing below. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented): A compound of the formula (I)

$$R_3$$
 R_2
 R_4
 R_4
 R_4
 R_5
 R_4
 R_5
 R_4
 R_5
 R_4
 R_5
 R_4
 R_5
 R_6
 R_7
 R_8
 R_8
 R_8
 R_9
 R_9

wherein the bond between carbon atoms 22 and 23 indicated with a broken line is a single or double bond,

m is 0 or 1,

R₁ represents a C₁-C₁₂alkyl, C₃-C₈cycloalkyl or C₂-C₁₂alkenyl group,

 R_2 represents an unsubstituted C_1 - C_{12} alkyl or halogen-substituted C_1 - C_{12} alkyl, unsubstituted C_3 - C_8 cycloalkyl or halogen-substituted C_3 - C_8 cycloalkyl, unsubstituted C_2 - C_{12} alkenyl or halogen-substituted C_2 - C_{12} alkenyl, unsubstituted C_2 - C_8 alkynyl or halogen-substituted C_2 - C_8 alkynyl or C_1 - C_1 - C_2 - C_3 - C_4 - C_4 - C_5 - C_5 - C_5 - C_6

R₃ is hydrogen, unsubstituted C₁-C₁₂ alkyl or halogen-substituted C₁-C₁₂ alkyl, unsubstituted C₃-C₈ cycloalkyl or halogen-substituted C₃-C₈ cycloalkyl, unsubstituted C₂-C₁₂ alkenyl or halogen-substituted C₂-C₁₂ alkenyl, unsubstituted C₂-C₈ alkynyl or halogen-substituted C₂-C₈ alkynyl, unsubstituted C₁-C₁₂alkoxy or halogen-substituted C₁-C₁₂alkoxy, unsubstituted phenoxy, OH, phenyl, naphtyl, anthracenyl, phenanthrenyl, perylenyl or fluorenyl, piperidinyl,

piperazinyl, oxiranyl, morpholinyl, thiomorpholinyl, pyridyl, N-oxidopyridinyl, pyrimidyl, pyrazinyl, s-triazinyl, 1,2,4-triazinyl, thienyl, furanyl, dihydrofuranyl, tetrahydrofuranyl, pyrrolyl, pyrrolyl, pyrrolinyl, pyrrolidinyl, pyrazolyl, imidazolyl, imidazolyl, imidazolyl, thiazolyl, isothiazolyl, triazolyl, oxazolyl, thiadiazolyl, thiazolinyl, thiazolidinyl, oxadiazolyl, dioxaborolanyl, phthalimidoyl, benzothienyl, quinolinyl, quinoxalinyl, benzofuranyl, benzimidazolyl, benzpyrrolyl, benzthiazolyl, indolinyl, isoindolinyl, cumarinyl, indazolyl, benzothiophenyl, benzofuranyl, pteridinyl or purinyl, that are unsubstituted or substituted by 1 to 3 substituents selected from the group consisting of halogen, =O, -OH, =S, SH, nitro, C_1 - C_6 alkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 alkoxy, C_1 - C_6 haloalkyl, C_1 - C_6 haloalkoxy, phenyl, benzyl, CN, -N(R_5)₂, -SR₈, -S(=O)R₈, -S(=O)₂R₈, or -S(=O)₂N(R_5)₂, where

 R_5 represents H, C_1 - C_6 alkyl that is optionally substituted with one to five substituents selected from the group consisting of halogen, C_1 - C_6 alkoxy, C_3 - C_8 -cycloalkoxy, hydroxy and cyano, C_1 - C_6 alkoxy, C_3 - C_8 -cycloalkyl, C_2 - C_{12} alkenyl, C_2 - C_8 alkynyl, benzyl, or benzyl which, depending on the possibilities of substitution on the ring, are mono- to trisubstituted by substituents selected from the group consisting of OH, halogen, CN, NO_2 , C_1 - C_{12} alkyl, C_1 - C_{12} haloalkyl, C_1 - C_{12} alkoxy, C_1 - C_{12} haloalkoxy, C_1 - C_1 2alkylthio and C_1 - C_1 2haloalkylthio; and

 R_8 represents C_1 - C_6 alkyl that is optionally substituted with one to five substituents selected from the group consisting of halogen, C_1 - C_6 alkoxy, hydroxy, cyano and benzyl, or benzyl which, depending on the possibilities of substitution on the ring, are mono- to trisubstituted by substituents selected from the group consisting of OH, halogen, CN, NO_2 , C_1 - C_{12} alkyl, C_1 - C_{12} haloalkyl, C_1 - C_{12} alkoxy, C_1 - C_{12} haloalkoxy, C_1 - C_{12} alkylthio and C_1 - C_{12} haloalkylthio; and

R₄ is hydrogen, unsubstituted C₁-C₁₂ alkyl, unsubstituted C₃-C₁₂ cycloalkyl, C₂-C₁₂ alkenyl or C₂-C₁₂ alkynyl;

or either R_2 and R_3 together or R_3 and R_4 together represent a three- to seven-membered alkylene or a four- to seven-membered alkenylene bridge, for each of which at least one, preferably a CH_2 group may be replaced by O, S or NR_6 , where R_6 represents; or, if appropriate, an E/Z isomer and/or tautomer of the compound of formula (I), in each case in free form or in salt form.

2. (Previously presented): A process for preparing a compound of formula (I)

wherein R_1 , R_2 , R_3 , R_4 , the bond between the carbon atoms 22 and 23 and m are as defined in claim 1, comprising the steps of:

(i) synthesizing a compound of formula (α)

wherein R_1 , the bond between the carbon atoms 22 and 23 and m are as defined for formula (I) in claim 1 and Q is a protecting group;

- (ii) reacting a disulfide, an aliphatic or aromatic phosphine and a compound of formula (α) to yield a sulfenimine derivative of the compound of formula (α);
- (iii) oxidising the sulfenimine derivative of the compound of formula (α) to yield a sulfinimine derivative of the compound of formula (α);

Application No. 10/599,671
Reply to the Office action of June 18, 2009

either

(iva) reacting an organometallic reagent having the R_2 group with the sulfinimine derivative of the compound of formula (α) to yield a desoxy – sulfinamide - derivative of the compound of formula (α); or

(ivb) reacting an isonitrile reagent of formula

where R_{12} is unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl, unsubstituted or mono- to pentasubstituted C_2 - C_{12} alkenyl, unsubstituted or mono- to pentasubstituted or mono- to pentasubstituted or mono- to pentasubstituted aryl, unsubstituted or mono- to pentasubstituted aryl, unsubstituted or mono- to pentasubstituted benzyl unsubstituted or mono- to pentasubstituted C_3 - C_{12} cycloalkyl ester, unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl ester, unsubstituted or mono- to pentasubstituted or mono- to pentasubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl nitrile with the sulfinimine derivative of the compound of formula (α) to yield a desoxy – amine derivative of the compound of formula (α); or (ivc) reacting an nitro alkyl reagent of formula

$$R_{10} \xrightarrow{H} R_{11}$$

$$N^{+} > 0$$

where R_{10} and R_{11} are independently of each other, H, CN, unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl, unsubstituted or mono- to pentasubstituted C_3 - C_{12} cycloalkyl, unsubstituted or mono- to pentasubstituted or mono- to pentasubstituted or mono- to pentasubstituted aryl, unsubstituted or mono- to pentasubstituted aryl, unsubstituted or mono- to pentasubstituted C_3 - C_{12} cycloalkyl ester, an unsubstituted or mono- to pentasubstituted or mono- to pentasubstituted or mono- to pentasubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl nitrile with the sulfinimine derivative of the compound of formula (α) to yield a desoxy – amine derivative of the compound of formula (α); and

either

(va) removing the sulfinyl group and protecting group Q either in one step or sequentially one after another to yield a compound of formula (I), where R₃ and R₄ each represent hydrogen, or

(vb) removing the sulfinyl group alone, carrying out reactions on one or more of the R_2 , R_3 and R_4 groups to modify the group and then removing the protecting group Q to yield a compound of formula (I), or

(vc) removing the protecting group Q if the sulfinyl group is removed during (iva) or (ivb) or (ivc) to yield a compound of formula (I).

3. (Previously presented): A process for preparing a compound of formula (I)

wherein R_1 , R_2 , R_3 , R_4 , the bond between the carbon atoms 22 and 23 and m are as defined in claim 1, comprising the steps of:

(i) synthesizing a compound of formula (β)

wherein R_1 , the bond between the carbon atoms 22 and 23 and m is as defined for formula (I) in claim 1 and X is H or Q, where Q is a protecting group;

(ii) reacting N-R₄hydroxylamine or salt thereof with a compound of formula (β) to yield a nitrone derivative of the compound of formula (β); either

(iiia) reacting an organometallic or a silyl reagent having the R_2 group with nitrone derivative of the compound of formula (β) to yield a desoxy – N-R₄hydroxylamino derivative of the compound of formula (β), where R_4 is as defined for formula (I) in claim 1, or

(iiib) reacting an alkene or an alkyne derivative with the nitrone derivative of the compound of formula (β) to yield a desoxy – N-isoxazolidine derivative or 2,3-dihydro-isoxazole derivative respectively of the compound of formula (β); and either

(iva) removing the protecting group Q, if present, to yield a compound of formula (I), where R_3 is OH in the event of reaction step (iiia), or where R_2 and R_3 is an alkylene or alkenylene bridge with a CH_2 group replaced by an oxygen atom in the event of reaction step (iiib), or (ivb) carrying out reactions on one or more of R_2 , R_3 and R_4 groups to modify the group and removing the protecting group Q, if present, to yield a compound of formula (I).

4. (Currently amended): A process for preparing a compound of formula (I)

wherein R_1 , R_3 , R_4 , the bond between the carbon atoms 22 and 23 and m are as defined in claim 1 and

R₂ is CN, comprising the steps of:

(i) synthesizing a compound of formula (β)

wherein R₁, the bond between the carbon atoms 22 and 23-and m is as defined in for formula (I) in claim 1 and X is H or Q, where Q is a protecting group; either

(iia) reacting the compound of formula (β) with a silylated amine (having the R₃ and R₄ groups) in presence of a Lewis acid and a trialkylsilyl cyanide, to yield a compound of formula (I) with the

proviso that the oxygen atom at the 5-carbon position is protected, if Q is present, and wherein R_1 , R_3 , R_4 , the bond between the carbon atoms 22 and 23 and m are as defined in claim 1 indicated with a broken line is a single or double bond, and R_2 is CN, or

- (iib) reacting the compound of formula (β) with an amine of formula R₃R₄NH, a chlorosilane, a Lewis acid and a trialkylsilyl cyanide to yield a compound of formula (I) with the proviso that the oxygen atom at the 5-carbon position is protected, if Q is present, and wherein R₁, R₃, R₄, the bond between the carbon atoms 22 and 23 and m are as defined in claim 1, and R₂ is CN;
- (iii) optionally carrying out reactions on one or both of R₃ and R₄ groups to modify the group; and (iv) removing the protecting group Q, if present, to yield a compound of formula (I); or
- (i) synthesizing a compound of formula (β)

wherein R_1 , the bond between the carbon atoms 22 and 23 and m are as defined for formula (I) in claim 1 and X is H or Q, where Q is a protecting group;

(ii) reacting the compound of formula (β) with an ammonium salt of formula $R_{18}CO_2^-NH_4^+$, an isocyanide of formula $R_{12}NC$ to yield a compound of formula (I), with the proviso that the oxygen atom at the 5-carbon position is protected, if Q is present in the compound of formula (β), wherein R_1 , the bond between the carbon atoms 22 and 23 and m are as defined in claim 1, R_2 is $R_{12}NHC(O)$, and R_4 is $R_{18}C(O)$, R_{18} is H, unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl, unsubstituted or mono- to pentasubstituted C_2 - C_{12} alkenyl, unsubstituted or mono- to pentasubstituted C_2 - C_{12} alkynyl, unsubstituted or mono- to pentasubstituted benzyl, unsubstituted or mono- to pentasubstituted benzyl,

unsubstituted or mono- to pentasubstituted C_3 - C_{12} cycloalkyl ester, unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl ester, unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl nitrile and R_{12} is as defined in claim 2unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl, unsubstituted or mono- to pentasubstituted C_2 - C_{12} alkenyl, unsubstituted or mono- to pentasubstituted or mono- to pentasubstituted aryl, unsubstituted or mono- to pentasubstituted aryl, unsubstituted or mono- to pentasubstituted benzyl unsubstituted or mono- to pentasubstituted C_3 - C_{12} cycloalkyl ester, unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_1 2alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_1 2alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_1 2alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_1 2alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_1 2alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_1 2alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_1 2alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_1 2alkyl sulfone or unsubstituted or mono- to pentasubstituted C_1 - C_1 2alkyl sulfone or unsubstituted C_1 - C_1 2alkyl sulfone or unsubstituted C_1 - C_1 2alkyl sulfone or unsubstituted C_1 - C_1 2alk

(iii) removing the protecting group Q, if present, to yield a compound of formula (I).

5. (Currently amended): A compound of the formula (III)

wherein the bond between carbon atoms 22 and 23 indicated with a broken line is a single or double bond.

m is 0 or 1,

R₁ represents a C₁-C₁₂alkyl, C₃-C₈cycloalkyl or C₂-C₁₂alkenyl[[,]] group,

R₈ represents C₁-C₆alkyl that is optionally substituted with one to five substituents selected from the group consisting of halogen, C₁-C₆alkoxy, hydroxy, cyano, phenyl, naphtyl, anthracenyl, phenanthrenyl, perylenyl [[or]]and fluorenyl, benzyl, which, depending on the possibilities of substitution on the ring, are mono- to trisubstituted by substituents

selected from the group consisting of OH, halogen, CN, NO₂, C₁-C₁₂alkyl, C₁-C₁₂haloalkyl, C₁-C₁₂alkoxy, C₁-C₁₂alkoxy, C₁-C₁₂alkylthio and C₁-C₁₂haloalkylthio, and

X represents H or Q, where Q is a suitable protecting group to prevent reaction on the oxygen atom at the 5-carbon position;

or, if appropriate, an E/Z isomer and/or diastereoisomer and/or tautomer of the compound of formula (III), in each case in free form or in salt form.

6. (Previously presented): A compound of the formula (V)

wherein the bond between carbon atoms 22 and 23 indicated with a broken line is a single or double bond,

m is 0 or 1,

R₁ represents a C₁-C₁₂alkyl, C₃-C₈cycloalkyl or C₂-C₁₂alkenyl, group,

 R_4 represents H, unsubstituted or mono- to pentasubstituted C_1 - C_{12} alkyl, unsubstituted or mono- to pentasubstituted C_3 - C_{12} cycloalkyl, unsubstituted or mono-to pentasubstituted C_2 - C_{12} alkenyl, unsubstituted or mono-to pentasubstituted C_2 - C_{12} alkynyl, and

X represents H or Q, where Q is a suitable protecting group to prevent reaction on the oxygen atom at the 5-carbon position; or, if appropriate, an E/Z isomer and/or diastereoisomer and/or tautomer of the compound of formula (V), in each case in free form or in salt form.

7. (Previously presented): A pesticidal composition comprising at least one compound of the formula (I), as defined in claim 1, as an active compound, and at least one auxiliary.

- 8. (Previously presented): A method for controlling pests comprising applying a composition defined in claim 7 to the pests or their habitat.
- 9. 11 (Cancelled).
- 12. (Original): A method for protecting plant propagation material comprising treating the propagation material, or the location where the propagation material is planted, with a composition defined in claim 7.
- 13. (Previously presented): A pest resistant plant propagation material having adhered thereto at least one compound of the formula (I), as defined in claim 1.
- 14. (Cancelled).
- 15. (Previously presented): A pesticidal composition comprising at least one compound of the formula (III), as defined in claim 5, as an active compound, and at least one auxiliary.
- 16. (Previously presented): A pesticidal composition comprising at least one compound of the formula (V), as defined in claim 6, as an active compound, and at least one auxiliary.
- 17. (Previously presented): A method for controlling pests comprising applying a composition defined in claim 15 to the pests or their habitat.
- 18. (Previously presented): A method for controlling pests comprising applying a composition defined in claim 16 to the pests or their habitat.
- 19. (Previously presented): A method for protecting plant propagation material comprising treating the propagation material, or the location where the propagation material is planted, with a composition defined in claim 15.

Application No. 10/599,671 Reply to the Office action of June 18, 2009

- 20. (Previously presented): A method for protecting plant propagation material comprising treating the propagation material, or the location where the propagation material is planted, with a composition defined in claim 16.
- 21. (Currently amended): A method for protecting plant propagation material comprising treating the propagation material, or the location where the propagation material is planted, with a <u>compositioncompound</u> defined in claim 5.
- 22. (Currently amended): A method for protecting plant propagation material comprising treating the propagation material, or the location where the propagation material is planted, with a compositioncompound defined in claim 6.